Reliance
Industries Limited

By E-Mail Submission

RIL-NMD/HSE/ENV/2024-08 **1st June 2024**

To,

Additional Principal Chief Conservator of Forest
Ministry of Environment, Forests & Climate change
Regional Office, Western Central Zone,
New Secretariat Building, Civil Lanes,
NAGPUR-440001, Maharashtra.

Subject: Half Yearly EC Compliance report for the period October 2023 to March 2024

Ref: 1) EC granted by MoEF vide file no. J-11011/12/89- IA.II dt: 30.11.1989 & amended on 27.07.1990
2) EC granted for Expansion by SEIAA, Maharashtra vide File no. SEAC-2013/CR- /TC-1 dt 05.09.2014.
3) EC granted for Expansion by MoEF&CC vide File no. J-11011/177/2015-IA-II (I) dt. 02.05.2018.

Dear Sir,

Please find enclosed Half Yearly EC Compliance Report for the period **October 2023 to March 2024** for the Environmental clearances issued on 1989, 2014 & 2018 referred above. The soft copy of this compliance report will be submitted to your official mail ID.

- Ann-A : Half yearly Compliance report for EC issued on 1989 by MoEF
- Ann-B : Half yearly Compliance report for EC issued on 2014 by SEIAA, Maharashtra
- Ann-C : Half yearly Compliance report for EC issued on 2018 by MoEF&CC

This is for your information and records please.

Thanking you.

Yours faithfully,
RELIANCE INDUSTRIES LTD -NAGOTHANE MANUFACTURING DIVISION

SACHIN BHAGWAT
VICE PRESIDENT-HSEF

Encl: *As above.*

Copy to : 1) Sub-Regional Officer-II, MPCB , Raigad Dist, CBD Belapur, Navimumbai
2) CPCB – Western Regional Office, Vadodara, Gujarat

Half Yearly Compliance Report
2024
01 Jun(01 Oct - 31 Mar)

Acknowledgment

Proposal Name	Expansion of MGCC Gas Cracker Complex-Environmental Clearance
Name of Entity / Corporate Office	Reliance Industries Limited
Village(s)	Benase
District	RAIGAD

Proposal No.	J-11011/12/89-IA.II/
Plot / Survey / Khasra No.	
State	MAHARASHTRA
MoEF File No.	J-11011/12/89-IA.II/

Category	Industrial Projects - 2
Sub-District	Pen
Entity's PAN	AAACR5055K
Entity name as per PAN	RELIANCE INDUSTRIES LIMITED

Compliance Reporting Details

Reporting Year 2024

Remarks (if any)

Reporting Period 01 Jun(01 Oct - 31 Mar)

Details of Production and Project Area

Name of Entity / Corporate Office Reliance Industries Limited

	Project Area as per EC Granted	Annual Project Area in Possession
Private	0	0
Revenue Land	0	0
Forest	0	0
Others	0	0
Total	0	0

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	Ethylene	Tons per Annum (TPA)	N/A	5,10,000	4,85,153	
2	Propylene	Tons per Annum (TPA)	N/A	70,000	17,576	
3	Ethylene Glycol	Tons per Annum (TPA)	N/A	70,000	28,642	
4	Ethylene Oxide	Tons per Annum (TPA)	N/A	60,000	58,515	
5	Linear Low Density Polyethylene (LLDPE) & High Density Polyethylene {HDPE)/Metallocene	Tons per Annum (TPA)	N/A	3,50,000	3,01,066	
6	Power	MW	N/A	100	59.12	
7	DM Water	Cu.M/Hr	N/A	400	245.47	
8	Nitrogen	Others:Nm3/Hour	N/A	21,200	8,027	
9	Polypropylene (PP)	Others:KTA	N/A	150	119.70	

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	AIR QUALITY MONITORING AND PRESERVATION	The project Authority must set up six air quality monitoring station in consultation with State Pollution Control Board at suitable locations in the plant and in the nearby areas. Monitoring should be done with the help of minimum continuous monitoring equipment. At no time, the emission level should be beyond the stipulated standards. In the event of failure of any pollution control system adopted by the unit, the respective unit should be out of operation immediately to be restarted only after the control system is rectified to achieve the desired efficiency. The recorded data should be furnished to the State Pollution Control Board once in every three months and to this Ministry in every six months.

PPs Submission: Complied Complied. • As specified in the EC, 6 ambient air quality monitoring stations are installed in the complex and out of which one station is Continuous AAQM station. Locations of these stations have been fixed in consultation with MPCB. All parameters as per NAAQS are being monitored at all these 6 stations. • Emission levels are always well within the limits and the reports are submitted to MoEF&CC and MPCB regularly (Please refer Annexure-1 & 2)	Date: 28/05/2024

2	MISCELLANEOUS	Supply of feedstock from Uran Terminal or any other source through the existing pipeline, is agreed to.

PPs Submission: Complied Complied.	Date: 28/05/2024

3	Statutory compliance	Strict adherence to the stipulations made by State Pollution Control Board and the Government of Maharashtra.

PPs Submission: Complied Complied. All the conditions given in latest Consent received from Maharashtra Pollution Control Board (MPCB) & Government of Maharashtra are complied.		Date: 28/05/2024
4	Statutory compliance	A revised Environmental impact Assessment Report and Environmental Management plan to be submitted for review to this Ministry within a period of six months from the date of issue of clearance letter. The revised EIA Report to cover identification, prediction and evaluation steps in all components of environment, viz. air, water, land, noise, biological and socio-economic. The socio-economic study should also cover the occupational health aspects.
PPs Submission: Complied Complied. M/s Engineers India Limited (EIL) had prepared the revised EIA report in 1990 and the same was submitted to Ministry on 26.06.1990.		Date: 28/05/2024
5	MISCELLANEOUS	Explore the possibility of product movement by pipeline and minimizing the road transport to the fullest extent possible.
PPs Submission: Complied Most of the products manufactured at NMD are solid, thus transported by road. There are small scale consumers for liquid products such as EO/EG and hence it is also transported by road.		Date: 28/05/2024
6	AIR QUALITY MONITORING AND PRESERVATION	Gaseous emissions of Sulphur dioxide, oxides of nitrogen, etc. should not at any time exceed the maximum permissible prescribed level by the Central/ State Pollution Control Board. In the event of any failure or non-performance of any pollution control system adopted, the unit should be put out of operation immediately and should not be restarted until the control system is suitably rectified to achieve the desired efficiency.
PPs Submission: Complied Complied. Gaseous emissions have not exceeded permissible prescribed limits by CPCB/ MPCB. • Stack monitoring is carried out through MoEF&CC approved 3rd party lab for all the stacks at site regularly. Also, Continuous Emission Monitoring systems (CEMS) is installed and connected to CPCB & MPCB. • The analytical results of Stack Emission/ ambient air quality monitoring are submitted as Annexure - 1, & 2		Date: 28/05/2024
7	WATER QUALITY MONITORING AND PRESERVATION	The possibility of recycling liquid effluent to the maximum extent possible must be explored either for afforestation or for plant process. The treated effluent must conform to MINAS both in quality and quantity before its discharge through closed pipeline to a submerged discharging point in Amba creek.
PPs Submission: Complied Complied. • The treated effluent is being reused for Horticulture activities & Fire water make up and excess if any, is disposed off in Dharamtar Creek at a point specified by NIO. • The treated effluent analysis is being carried out internally on shift basis & on a monthly basis through MoEF&CC approved 3rd party lab. • The analytical results of effluent were found within stipulated limits and the reports are submitted as Annexure- 3.		Date: 28/05/2024
8	WASTE MANAGEMENT	A solid wastes disposal plan will have to be prepared.
PPs Submission: Complied Complied. Solid waste management plan prepared and submitted along with Revised EIA report on 26.06.1990.		Date: 28/05/2024
9	MISCELLANEOUS	Environmental risk analysis of various process operations should be carried out and report submitted within six months.

	PPs Submission: Complied Complied. The same had been covered in M/s EIL's EIA report'1990.		Date: 28/05/2024
10	WATER QUALITY MONITORING AND PRESERVATION	The project Authority must set up adequate number of water quality monitoring stations in the coastal area in consultation with State Pollution Control Board to record long term impacts, if any. The recorded data must be furnished to the State Pollution Control Board once in very three months and to this Ministry once in every six months. if at any time effluent quality does not conform to the prescribed limit, the corresponding units of the plant which are contributing the excessive pollution loads shall be put out of operation till the quality of pollutant discharged from the unit is brought down to the required level.	
	PPs Submission: Complied Complied. • Periodic monitoring of Amba estuary is being carried out annually by CSIR- National Institute of Oceanography since 1990 at the behest of RIL-NMD and report is being submitted to MPCB regularly. • The treated effluent analysis is being carried out internally on shift basis & on a monthly basis through MoEF&CC approved 3rd party lab. • The analytical results of treated effluent were found within stipulated limits and the reports are submitted as Annexure- 3.		Date: 28/05/2024
11	WASTE MANAGEMENT	The disposal of spent catalysts should be carefully regulated and they should not be mixed with other solid wastes for disposal in low lying areas. They may be sent back to the manufacturer for re-generation of safe disposal method evolved and records maintained for this purpose. The site selected for disposal of any spent catalysts should be thoroughly investigated from its likely impact on water and land resources in the region.	
	PPs Submission: Complied Complied. • Spent catalyst when generated is being sent to CPCB/MPCB approved recyclers/ re-processor. • Spent catalysts are collected separately and stored in drums and these spent catalyst drums are stored in common Haz. waste storage yard before disposal to approved recyclers.		Date: 28/05/2024
12	AIR QUALITY MONITORING AND PRESERVATION	No change in stacks should be made without the prior approval of State Pollution Control Board. The minimum height of the major stacks must be 100 meters for proper dispersion of air pollutants.	
	PPs Submission: Complied The height of the stacks is as that given in the Consent to Operate.		Date: 28/05/2024
13	Noise Monitoring & Prevention	The project Authority should maintain noise and vibration level within the permissible limit to avoid occupational health hazard to the persons working within the plant.	
	PPs Submission: Complied Complied. • Noise level (Leq) in and around the plant is maintained within the prescribed limits by means of adequate noise control measures. PPE’s are provided to personnel working in high noise areas. • The overall noise levels in and around the plant area are kept well within the standards. The Ambient noise monitoring data is submitted as Annexure 4		Date: 28/05/2024
14	Human Health Environment	The standards laid down for occupational health of the workers should be adopted and followed. If Indian standards in this regard, for any specific pollutants are not available, the relevant standards of WHO/ ILO, etc. should be followed.	
	PPs Submission: Complied Complied. Periodic medical examination for all the employees is being conducted annually and		Date: 28/05/2024

records are maintained as per the Factories Act.			
15	Risk Mitigation and Disaster Management	Proper safety precautions, fire hazards precautions should be constantly reviewed and updated.	
PPs Submission: Complied Complied. Adequate safety & fire precautions taken to keep risks ALARP, and the same is reviewed and updated periodically. • Revised Disaster Management Plan submitted to Ministry on 27-07-1992 • Emergency Response & Contingency Plan reviewed & updated regularly, and updated plan are submitted to DISH.			Date: 28/05/2024
16	MISCELLANEOUS	The project Authority must provide infrastructure facilities (energy, water etc.) for the construction workers during construction period.	
PPs Submission: Complied Complied.			Date: 28/05/2024
17	MISCELLANEOUS	The project Authority must set up a full-fledged laboratory facilities for collection and analysis of samples, under the supervision of senior technical personnel.	
PPs Submission: Complied Complied. • NABL accredited existing Laboratory in RIL-NMD is carrying out the Effluent & Water sample analysis. • Ambient & Stack monitoring are carried out through MoEF&CC approved 3rd Party Laboratory.			Date: 28/05/2024
18	Risk Mitigation and Disaster Management	The project Authority must submit a Disaster Management plan duly approved by nodal agency within a period of six months.	
PPs Submission: Complied Complied. Disaster management plan included in the revised EIA Also, Revised DMP submitted to Ministry on 27.07.1992.			Date: 28/05/2024
19	GREENBELT	The project Authority must design a green belt and should be incorporated in the revised EIA report.	
PPs Submission: Complied Complied. • Design of the Greenbelts is as per the CPCB guidelines, i.e main preference for local species. • Greenbelt details were included in the Revised EIA report which was submitted to Ministry on 26.06.1990			Date: 28/05/2024
20	GREENBELT	Additional area under the control of the project which are not used for plant utility must be afforested and funds for this purpose should be made available.	
PPs Submission: Complied Complied. Dedicated funds are allotted for afforestation/ greenbelt development every year.			Date: 28/05/2024
21	MISCELLANEOUS	A separate Environment Management Cell with suitably qualified people to carry out various functions related to environmental management be set up under the control of a senior technical personnel who will report direct to the Head of Organization.	
PPs Submission: Complied Complied. A dedicated full-fledged Environmental Cell consisting of suitably qualified Professional is set up. It is headed by Head- Environment, who directly reports to the Site President.			Date: 28/05/2024
22	MISCELLANEOUS	Adequate funds (capital & recurring expenditure) along with	

		implementation schedule be provided for implementation of the above stipulations and the funds so provided should not be diverted for any other purpose.

PPs Submission: Complied Complied. • Adequate budget is being provided annually for complying with the stipulations of environment clearance. • Records of environmental expenditure are being maintained and details are being annually submitted to MOEF&CC/MPCB through Environment Statement.	Date: 28/05/2024

Visit Remarks

Last Site Visit Report Date:	N/A
Additional Remarks:	1. Annexure 1-5 & form-V are uploaded as Additional Attachment. 2.Above is the Compliance Status submitted for EC granted by MoEF, Govt. of India vide letter no . J-11011/12/89- IA.II/ dtd. 30.11.1989 & amended on 27.07.1990.

Half Yearly Compliance Report
2024
01 Jun(01 Oct - 31 Mar)

Acknowledgment

Proposal Name	Debottlenecking of existing plant and setting up of New plants at Reliance Industries Limited, Nagothane Manufacturing Division (NMD)
Name of Entity / Corporate Office	Reliance Industries Limited
Village(s)	Benase
District	RAIGAD

Proposal No.	SEAC-2013/CR-/TC-1
Plot / Survey / Khasra No.	
State	MAHARASHTRA
MoEF File No.	SEAC-2013/CR-/TC-1

Category	Industrial Projects - 2
Sub-District	Pen
Entity's PAN	AAACR5055K
Entity name as per PAN	RELIANCE INDUSTRIES LIMITED

Compliance Reporting Details

Reporting Year	2024
Remarks (if any)	
Reporting Period	01 Jun(01 Oct - 31 Mar)

Details of Production and Project Area

Name of Entity / Corporate Office Reliance Industries Limited

	Project Area as per EC Granted	Annual Project Area in Possession
Private	0	0
Revenue Land	0	0
Forest	0	0
Others	0	0
Total	0	0

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	Ethylene	Tons per Annum (TPA)	N/A	5,10,000	4,85,153	
2	Propylene	Tons per Annum (TPA)	N/A	70,000	17,576	
3	Ethylene Glycol	Tons per Annum (TPA)	N/A	70,000	28,642	
4	Ethylene Oxide	Tons per Annum (TPA)	N/A	60,000	58,515	
5	Power	MW	N/A	100	59.12	
6	DM Water	Cu.M/Hr	N/A	400	245.47	
7	Linear Low Density Polyethylene (LLDPE) & High Density Polyethylene {HDPE)/Metallocene	Tons per Annum (TPA)	N/A	3,50,000	3,01,066	
8	Polypropylene (PP)	Others:KTA	N/A	150	119.70	
9	Nitrogen	Others:Nm3/hour	N/A	21,200	8,027	

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	AIR QUALITY MONITORING AND PRESERVATION	A stack of adequate height based on DG set capacity shall be provided for control and dispersion of pollutant from DG set. (If applicable).

PPs Submission: Complied Complied. The stack height of the DG sets has been provided as per the CPCB guidelines. DG set, Capacity (KVA),Stack height (m): GC (2 nos.), 500 KVA * 2, 4.5 m CPP, 867 KVA, 5.9 m LDPE,250 KVA, 3.5 m	Date: 28/05/2024

2	Statutory compliance	No additional land shall be used/ acquired for any activity of the project without obtaining proper permission.

PPs Submission: Complied Complied. The expansion & debottlenecking project was executed within the existing complex. No additional land was required.	Date: 28/05/2024

3	Statutory compliance	This environmental clearance is issued subject to obtaining NOC from Forestry & Wild life angle including clearance from the standing committee of the National Board for Wild life as if applicable & this environment clearance does not necessarily implies that Forestry & Wild life clearance granted to the project which will be considered separately on merit.

PPs Submission: Complied Not applicable. The entire project site is located within a Notified industrial area of MIDC, Govt of Maharashtra.	Date: 28/05/2024

4	AIR QUALITY	For controlling fugitive natural dust, regular sprinkling of water &

	MONITORING AND PRESERVATION	wind shields at appropriate distances in vulnerable areas of the plant shall be ensured.
PPs Submission: Complied Complied. • All Plant areas are paved and internal roads are bitumen topped thus preventing dust emission. • Adequate greenbelt has also been developed in and around the plant area for controlling fugitive dust.		Date: 28/05/2024
5	Statutory compliance	PP has to abide by the conditions stipulated by SEAC & SEIAA
PPs Submission: Complied Complied, compliance report is being regularly submitted to RO – MoEF&CC, RO - CPCB & MPCB.		Date: 28/05/2024
6	AIR QUALITY MONITORING AND PRESERVATION	Regular monitoring of the air quality, including SPM & SO2 levels both in work zone and ambient air shall be carried out in and around the power plant and records shall be maintained. The location of monitoring stations and frequency of monitoring shall be decided in consultation with Maharashtra Pollution Control Board (MPCB) & submit report accordingly to MPCB.
PPs Submission: Complied Complied. • Six AAQM stations have been setup in consultation with MPCB. • AAQ monitoring is being carried out in 6 locations as per NAAQS, 2009. • Work zone monitoring is carried out in the plant area regularly. The results of ambient air quality monitoring were found to be within stipulated limits and the results of the reporting period are enclosed as Annexure- 2		Date: 28/05/2024
7	MISCELLANEOUS	Necessary arrangement shall be made to adequate safety and ventilation arrangement in furnace area.
PPs Submission: Complied Complied. All furnaces are located in open area, Adequate safety measures are also implemented as per standards.		Date: 28/05/2024
8	MISCELLANEOUS	Proper Housekeeping programs shall be implemented.
PPs Submission: Complied Complied. A structured “5S” system is implemented at site for housekeeping.		Date: 28/05/2024
9	MISCELLANEOUS	In the event of the failure of any pollution control system adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved.
PPs Submission: Complied Complied. Pollution control devices are kept in running condition at all times through preventive maintenance schedules. Such an event of failure of any pollution control system did not occur during this period.		Date: 28/05/2024
10	Risk Mitigation and Disaster Management	Adequate safety measures shall be provided to limit the risk zone within the plant boundary, in case of an accident. Leak detection devices shall also be installed at strategic places for early detection and warning.
PPs Submission: Complied Complied. LEL detectors are provided at strategic locations in the plant for early detection of leaks. Necessary safety measures are implemented in the entire site based on the identified risks. The company has implemented a detailed LDAR program for detection and repair of leaks.		Date: 28/05/2024
11	Human Health Environment	Occupational health surveillance of the workers shall be done on a

		regular basis and record maintained as per Factories Act.
PPs Submission: Complied Complied. Periodic medical examination for all the employees & Contract workers are being conducted annually and records are maintained as per the Factories Act.		Date: 28/05/2024
12	MISCELLANEOUS	The company shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling.
PPs Submission: Complied Complied. • Fire proofing is done in identified areas as per the Standards. • Dedicated Fire stations (Main & auxiliary) with 8 Fire tenders & 3 Fire jeeps are available round the clock. • Fire mitigation equipment like Fire Hydrants, fire extinguishers, Foam systems, Deluge systems are available at identified locations. • Testing and maintenance of the same is being carried out regularly. • Permit to Work system is being practiced for all the jobs.		Date: 28/05/2024
13	WASTE MANAGEMENT	The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous waste in accordance with the Hazardous Waste (Management and Handling) Rules, 2003 (amended). Authorization from the MPCB shall be obtained for collections/ treatment/ storage/ disposal of hazardous wastes.
PPs Submission: Complied Complied. Provisions of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 are complied with. Authorization from MPCB for generation/collection/storage /transport/ disposal of hazardous waste has been obtained. .		Date: 28/05/2024
14	WASTE MANAGEMENT	The company shall undertake following Waste Minimization Measures: • Metering of quantities of active ingredients to minimize waste. • Reuse of by-products from the process as raw materials or as raw material substitutes in other process. • Maximizing Recoveries. • Use of automated material transfer system to minimize spillage.
PPs Submission: Complied Complied. • Waste minimization measures are implemented in all the process plants at the site. • All processes have automated material handling systems for proper metering, avoiding spillages and loss of material. • Reuse and recycling of waste is practiced to the extent possible. Recyclable wastes are sent only to MPCB/CPCB authorized recyclers.		Date: 28/05/2024
15	Risk Mitigation and Disaster Management	Regular mock drills for the on-site emergency management plan shall be carried out. Implementation of changes/ improvements required, if any, in the on-site management plan shall be ensured.
PPs Submission: Complied Complied. The company has a well-established on-site emergency management plan. Mock drills are being carried out on monthly basis.		Date: 28/05/2024
16	MISCELLANEOUS	A separate environment management cell with qualified staff shall be set up for implementation of the stipulated environmental safeguards.
PPs Submission: Complied Complied. A dedicated full-fledged Environmental Cell consisting of suitably qualified professionals is headed by Head-Environment, who reports to the Site President.		Date: 28/05/2024
17	WASTE MANAGEMENT	Transportation of ash will be through closed containers and all measures should be taken to prevent spilling of the ash.

	PPs Submission: Complied Not Applicable.	Date: 28/05/2024
18	WASTE MANAGEMENT	Separate silos will be provided for collecting and storing bottom ash and fly ash.
	PPs Submission: Complied Not Applicable.	Date: 28/05/2024
19	MISCELLANEOUS	Separate funds shall be allocated for implementation of environmental protection measures/ EMP along with item-wise break-up. These cost shall be included as part of the project cost. The funds earmarked for the environment protection measures shall not be diverted for other purpose and year-wise expenditure should reported to the MPCB and this department.
	PPs Submission: Complied Complied. Separate funds are allocated for implementation of environmental protection measures and are not diverted for any other purposes. Environmental expenditure details are being annually submitted through Environment Statements.	Date: 28/05/2024
20	Statutory compliance	The project management shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the Marathi language of the local concerned within seven days of issue of this letter, informing that the project has been accorded environmental clearance and copies of clearance letter are available with the Maharashtra Pollution Control Board and may also be seen at Website at http://cc.maharashtra.gov.in
	PPs Submission: Complied Complied. The advertisement was published in "The Free Press Journal" in English, "Vishwarup" in Marathi on 14th September 2014. & in "Raigad Times" in Marathi on 13th September 2014.	Date: 28/05/2024
21	Statutory compliance	Project management should submit half yearly compliance reports in respect of the stipulated prior environment clearance terms and conditions in hard & soft copies to the MPCB and this department, on 1st June & 1st December of each calendar year.
	PPs Submission: Complied Complied. Half yearly compliance reports are being regularly submitted. Timely submission of last report is done on 1st December 2023.	Date: 28/05/2024
22	MISCELLANEOUS	A copy of the clearance letter shall be sent by proponent to the concerned Municipal Corporation and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.
	PPs Submission: Complied Complied. A copy of the EC is submitted to the local Gram Panchayat.	Date: 28/05/2024
23	Statutory compliance	The proponent shall upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO2, NOx (ambient levels as well as stack emissions) or critical sectorial parameters, indicated for

		the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
PPs Submission: Complied Complied. EC compliance report is submitted periodically to MoEF Regional office, CPCB zonal office and MPCB. The Environmental data is displayed on the main gate (Kuhire gate) of the company at a location which is clearly visible to the public.		Date: 28/05/2024
24	Statutory compliance	Six monthly monitoring reports should be submitted to the Regional Office MoEF, Bhopal with copy to this department and MPCB.
PPs Submission: Complied Complied. Half yearly compliance reports are being regularly submitted. Timely submission of last report is done on 1st December 2023.		Date: 28/05/2024
25	MISCELLANEOUS	A complete set of all the documents submitted to Department should be forwarded to the Local authority and MPCB.
PPs Submission: Complied Complied.		Date: 28/05/2024
26	WATER QUALITY MONITORING AND PRESERVATION	A detailed scheme for rainwater harvesting shall be prepared and implemented to recharge ground water.
PPs Submission: Complied Complied. 2 Rainwater harvesting ponds are constructed at the site. Capacity (m3), Dimensions (m): 5,300m3, 50*30*3.5m; 11,200m3, 89*38*3.3m		Date: 28/05/2024
27	WATER QUALITY MONITORING AND PRESERVATION	Arrangement shall be made that effluent and storm water does not get mixed.
PPs Submission: Complied Complied. There is a separate drainage network for effluents and storm water to ensure that they are not mixed.		Date: 28/05/2024
28	WATER QUALITY MONITORING AND PRESERVATION	Periodic monitoring of ground water shall be undertaken and results analyzed to ascertain any change in the quality of water. Results shall be regularly submitted to the Maharashtra Pollution Control Board.
PPs Submission: Complied Complied. Periodic monitoring of ground water is carried out in and around the site at 5 locations and the same is also regularly submitted to MPCB. The ground water monitoring results for the reporting period is enclosed as Annexure 5.		Date: 28/05/2024
29	Noise Monitoring & Prevention	Leq of Noise level shall be maintained as per standards. For people working in the high noise area, requisite personal protective equipment like earplugs etc. shall be provided.
PPs Submission: Complied Complied. Noise level (Leq) in and around the plant is maintained well within the prescribed limits by means of adequate noise control measures. PPE's are provided to personnel working in high noise areas.		Date: 28/05/2024
30	Noise Monitoring & Prevention	The overall noise levels in and around the plant are shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures, etc. on all sources of noise generation. The ambient noise levels shall confirm to the

		standards prescribed under Environment (Protection) Act, 1986 Rules, 1989.

PPs Submission: Complied Complied. Appropriate engineering control measures such as acoustic hoods, silencers, enclosures etc. are provided at identified sources of noise generation. The overall noise levels in and around the plant area are kept well within the standards. The Ambient noise monitoring results for the reporting period is enclosed as Annexure 4.	Date: 28/05/2024

31	GREENBELT	Green belt shall be developed & maintained around the plant periphery. Green Belt Development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with the local DFO/ Agriculture Department..

PPs Submission: Complied Complied. Out of 744 ha of Plant & Township area, green belt has been developed & maintained in 33% of the area. Native species are used in the development of the green belt as per the CPCB guidelines.	Date: 28/05/2024

Visit Remarks

Last Site Visit Report Date:	N/A
Additional Remarks:	Annexure 1-5 & form-V are uploaded as Additional Attachment.

Half Yearly Compliance Report
2024
01 Jun(01 Oct - 31 Mar)

Acknowledgment

Proposal Name	Expansion and Debottlenecking of Petrochemical Complex by M/s Reliance Industries Limited at Nagothane Manufacturing Division, MIDC, Tehsil Roha District Raigad (Maharashtra)-Environmnetal Clearance-reg.
Name of Entity / Corporate Office	Reliance Industries Limited
Village(s)	Benase
District	RAIGAD

Proposal No.	IA/MH/IND2/28995/2015	**Category**	Industrial Projects - 2
Plot / Survey / Khasra No.		**Sub-District**	Pen
State	MAHARASHTRA	**Entity's PAN**	AAACR5055K
MoEF File No.	File No. J-11011/177/2015-IA II (I)	**Entity name as per PAN**	RELIANCE INDUSTRIES LIMITED

Compliance Reporting Details

Reporting Year 2024

Remarks (if any)

Reporting Period 01 Jun(01 Oct - 31 Mar)

Details of Production and Project Area

Name of Entity / Corporate Office Reliance Industries Limited

	Project Area as per EC Granted	Annual Project Area in Possession
Private	0	0
Revenue Land	0	0
Forest	0	0
Others	0	0
Total	0	0

Production Capacity

Sr. no	Product Name	units	Valid Upto	Capacity	Production last year	Capacity as per CTO
1	Ethylene	Tons per Annum (TPA)	N/A	5,10,000	4,85,153	
2	Nitrogen	Others:Nm3/Hour	N/A	21,200	8,027	
3	Polypropylene (PP)	Others:KTA	N/A	150	119.70	
4	Propylene	Tons per Annum (TPA)	N/A	70,000	17,576	
5	Ethylene Glycol	Tons per Annum (TPA)	N/A	70,000	28,642	
6	Ethylene Oxide	Tons per Annum (TPA)	N/A	60,000	58,515	
7	Linear Low Density Polyethylene (LLDPE) & High Density Polyethylene {HDPE)/Metallocene	Tons per Annum (TPA)	N/A	3,50,000	3,01,066	
8	Power	MW	N/A	100	59.12	
9	DM Water	Cu.M/Hr	N/A	400	245.47	

Conditions

Specific Conditions

Sr.No.	Condition Type	Condition Details
1	Statutory compliance	The project proponent shall provide documentary evidence to establish the start of manufacturing products (Recycle Polyethylene Terephthalate (R PET) of capacity 16,000 MTA, Reliance Paraffin Dehydrogenation Catalyst-10 (RPDC-10) of capacity 60 MTA & Alumina Balls and powder of capacity 4.8 MTA only after having all statutory clearances. Such a clarification shall be submitted by the project proponent to the Regional Office of the Ministry at Nagpur within 6 months for examination at their end in consultation with the State Pollution Control Board, and forwarding the comments to this Ministry.

PPs Submission: Complied Complied. The clarification letter with all the relevant documents submitted to MoEF&CC Regional office, Nagpur on 06.08.2018. In continuation to our letter, MoEF&CC Regional office, Nagpur communicated to Member Secretary, MPCB vide letter No. EC-865/RON/2018-NGP dated: 14.09.2018 for seeking their clarifications. The copy of both were submitted along with EC compliance report submitted on : 08.07.2019.	Date: 28/05/2024

2	Statutory compliance	Compliance to all the environmental conditions stipulated in the environmental clearance letter no. SEAC-2013/CR-TC-1 date 5th September, 2014 shall be satisfactorily implemented and compliance report to be submitted to the Ministry's Regional Office.

PPs Submission: Complied Complied. All the conditions stipulated in the EC granted in year 2014 have been complied with and the compliance report is submitted for your records as Annexure-B.	Date: 28/05/2024

3	GREENBELT	As proposed, green belt over 298 ha shall be developed/maintained within plant premises with at least 10 meter wide green belt on all

		sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
PPs Submission: Complied Complied. • Design of the Greenbelts is as per the CPCB guidelines, i.e preference for local species, 10-25 metre width greenbelt along periphery, hedges along roadside. • Maharashtra Horticulture Dept had been consulted for the Greenbelt development and they have provided inputs during the development stage.		Date: 29/05/2024
4	MISCELLANEOUS	Provision shall be made for the housing for the construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structure to be removed after the completion of the project. All the construction wastes shall be managed so that there is no impact on the surrounding environment.
PPs Submission: Complied Complied. Adequate accommodation facilities with all infrastructure were provided to the construction workers during project implementation.		Date: 29/05/2024
5	MISCELLANEOUS	A regular Environment Manager having Post Graduate qualification in Environmental Sciences/ Environmental Engineering to be appointed for looking after the environmental management activities of the proposed plant.
PPs Submission: Complied Complied. A dedicated full-fledged Environmental Cell consisting of suitably qualified Professionals is headed by Head (Environment), who reports to the Site President.		Date: 29/05/2024
6	AIR QUALITY MONITORING AND PRESERVATION	The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
PPs Submission: Complied Complied. Adequate stack heights have been provided for proper dispersion of gaseous emissions.		Date: 28/05/2024
7	AIR QUALITY MONITORING AND PRESERVATION	Ambient air quality data shall be collected as per NAAQS standards notified by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009. The levels of PM10, PM2.5, S02, NOx, VOC and CO shall be monitored in the ambient air and emissions from the stacks and displayed at a convenient location near the main gate of the company and at important public places. The company shall upload the results of monitored data on its website and shall update the same periodically. It shall simultaneously be sent to the Regional office of MOEF, the respective Zonal office of CPCB and the Maharashtra Pollution Control Board (MPCB).
PPs Submission: Complied Complied. • AAQ monitoring is being carried out in 6 locations for all the parameters including VOC (Benzene) as notified in NAAQS, 2009. • Stack monitoring is carried out through MoEF approved 3rd party lab for all the stacks at site regularly. Also, Continuous Emission Monitoring systems (CEMS) is installed and connected to CPCB & MPCB portal since 2016. • The analytical results the Stack Emission/ ambient air quality were found to be within stipulated limits during this reporting period and the reports are being submitted to MoEF&CC, CPCB and MPCB through Half yearly reports (Please refer Annexure-1 , 2) • AAQM & Stack emission results are displayed at the plant entrance near main gate.		Date: 29/05/2024
8	AIR QUALITY	Fugitive emissions in the work zone environment, product, raw

	MONITORING AND PRESERVATION	materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits stipulated by the MPCB.
PPs Submission: Complied Complied. Air quality is being monitored in plant premises like storages of products and raw-materials and workplace. LDAR program is also implemented which includes periodic monitoring of fugitive emissions.		Date: 29/05/2024
9	AIR QUALITY MONITORING AND PRESERVATION	The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.
PPs Submission: Complied Complied. The existing DG sets are meeting the CPCB guidelines and having adequate acoustic enclosures. Adequate stack height of the DG sets has been provided as per the CPCB guidelines. DG set, Capacity (KVA), Stack height (m): GC (2 nos.), 500KVA * 2, 4.5m; CPP, 867KVA, 5.9m; LDPE, 250 KVA, 3.5m		Date: 29/05/2024
10	WATER QUALITY MONITORING AND PRESERVATION	Total fresh water requirement from MIDC shall not exceed 36,000 m3/day and prior permission shall be obtained from the competent authority. No ground water shall be used without permission.
PPs Submission: Complied Complied. PP has obtained permission to draw 67,500 m3/day of water from MIDC. Fresh Water requirement, drawn from MIDC, does not exceed 36,000 m3/day. No Ground water is used.		Date: 29/05/2024
11	WATER QUALITY MONITORING AND PRESERVATION	The generated effluent shall be treated in the existing ETP. The treated effluent shall be recycled into the system, reused in the green belt and RO reject of 1000 m3/day only shall be sent through the existing 26 km pipeline and discharged into Dharamtar creek.
PPs Submission: Complied Complied. The treated Effluent is being reused in Horticulture activities, Fire Water make up and Cooling Tower make up. The RO reject is being discharged through existing 26 km pipeline at Dharamtar Creek. Permission to discharge has already been given in EC granted by MoEF dated 30-11-1989.		Date: 29/05/2024
12	AIR QUALITY MONITORING AND PRESERVATION	Continuous online (24X7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server.
PPs Submission: Complied Complied. The stack emissions are being continuously monitored by CEMS analyzers as per CPCB Guidelines and connected to CPCB (https://rtdms.cpcb.gov.in/industry-login) & MPCB portal (https://onlinecems.ecmpcb.in/#/login) since 2016.		Date: 29/05/2024
13	WATER QUALITY MONITORING AND PRESERVATION	Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
PPs Submission: Complied Complied. Storm water and effluent channels are separate by design, and it ensures that the two streams do not intermingle.		Date: 29/05/2024
14	MISCELLANEOUS	Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.

PPs Submission: Complied Complied. All the hazardous chemicals are stored in Tank farms & suitable containers. Required flame arrestors are provided in the tanks as per PESO guidelines and solvents are transferred only through closed pipelines.		Date: 29/05/2024
15	WASTE MANAGEMENT	As proposed, ETP sludge shall be disposed at TSDF. Organic waste, spent solvent distillation residue, spent catalyst shall be sent to registered recyclers/ reprocessors /TSDF.
PPs Submission: Complied Complied. • ETP Oily & Chemical sludge and Process Organic wastes are being disposed at CHWTSDF at Taloja or sent for co-processing to cement industry. • ETP Biological sludge are being used as manure in Horticulture. • Spent Solvents & Catalyst are disposed to authorized recyclers.		Date: 29/05/2024
16	WASTE MANAGEMENT	The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from MPCB shall be obtained for disposal of solid/ hazardous waste in the TSDF. Measures shall be taken for firefighting facilities in case of emergency.
PPs Submission: Complied Agreed. 'Authorization' from MPCB under the 'Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016', has been obtained and it is valid till 31.08.2026. Fire mitigation equipment like Fire Hydrants, fire extinguishers, Foam systems, Deluge systems are available at identified locations. Testing and maintenance of the same is being carried out regularly.		Date: 29/05/2024
17	Statutory compliance	The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All Transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
PPs Submission: Complied Complied. • Provisions under the MSIHC Rules are complied with. • Emergency Response & Contingency Plan reviewed & updated regularly and updated plan being submitted to DISH. Records of submission are available. • Haz. chemicals are transported as per the provision of Motor Vehicle Act (MVA), 1989		Date: 29/05/2024
18	Risk Mitigation and Disaster Management	The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Firefighting system shall be as per the norms.
PPs Submission: Complied Complied. • Fire proofing is done in identified areas as per the Standards • Dedicated Fire stations (Main & auxiliary) with 8 Fire tenders & 3 Fire jeeps are available round the clock. • Fire mitigation equipment like Fire Hydrants, fire extinguishers, Foam systems, Deluge systems are available at identified locations. • Testing and maintenance of the same is being carried out regularly.		Date: 29/05/2024
19	Human Health Environment	Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
PPs Submission: Complied Complied. Periodic medical examination for all the employees & contract workers are being conducted annually and records are maintained as per the Factories Act.		Date: 29/05/2024
20	MISCELLANEOUS	At least 2.5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local

		needs and action plan with financial and physical breakup/details shall be prepared and submitted to the Ministry's Regional Office. Implementation of such program shall be ensured accordingly in a time bound manner.

PPs Submission: Complied Complied. MoEF&CC has come up with an OM vide F. No. 22-65/2017-IA.III dated: 01.05.2018. Accordingly the applicable Corporate Environment Responsibility (CER) for our project is 0.25% of the capital investment. The CER expenditure is completed as per the plan.	Date: 29/05/2024

21	MISCELLANEOUS	All pollution control and monitoring equipments shall be installed, tested and interlocked with the process. SPCB shall grant 'Consent to Operate' after ensuring that all the mentioned pollution control equipments, construction of storm water drain, rain water harvesting structure, Greenbelt, uploading of compliance report on the website etc. have been implemented.

PPs Submission: Complied 'Consent to Operate' has been granted by MPCB.	Date: 28/05/2024

General Conditions

Sr.No.	Condition Type	Condition Details
1	Statutory compliance	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.

PPs Submission: Complied Agreed.	Date: 29/05/2024

2	Statutory compliance	The project authorities shall adhere to the stipulations made by the State Government, Central Pollution Control Board, State Pollution Control Board and any other statutory authority.

PPs Submission: Complied Agreed.	Date: 29/05/2024

3	AIR QUALITY MONITORING AND PRESERVATION	The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one station each is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.

PPs Submission: Complied Complied. The location of the AAQM stations are decided in consultation with MPCB and 6 AAQM stations have been setup.	Date: 29/05/2024

4	AIR QUALITY MONITORING AND PRESERVATION	The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.

PPs Submission: Complied Complied, ambient air quality is being monitored for all the parameters stipulated in the NAAQ Standards, 2009 and the monitoring frequency is as per CPCB guidelines & NAAQ Standards 2009.		Date: 29/05/2024
5	Noise Monitoring & Prevention	The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
PPs Submission: Complied Complied. The Ambient noise monitoring results for the reporting period is enclosed as Annexure 4.		Date: 29/05/2024
6	WATER QUALITY MONITORING AND PRESERVATION	The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and use the same water for the process activities of the project to conserve fresh water.
PPs Submission: Complied Complied. 2 Rainwater harvesting ponds are constructed at the site. Capacity (m3), Dimensions (LxBxD m): 5,300 m3, 50*30*3.5m; 11,200m3, 89*38*3.3m		Date: 29/05/2024
7	Human Health Environment	Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.
PPs Submission: Complied Complied. Only after the comprehensive Safety & Environmental training (including chemical handling) employees & contractors are engaged for plant operation & maintenance jobs. We are also regularly carrying out awareness training for all on these subjects. Pre-employment & annual medical checkup are mandatory for all the employees including those of contractor and records are being maintained as per Factories Act.		Date: 29/05/2024
8	MISCELLANEOUS	The company shall also comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management and risk mitigation measures relating to the project shall be implemented
PPs Submission: Complied Complied. All the recommendations made in the EIA are implemented.		Date: 29/05/2024
9	MISCELLANEOUS	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. ESC activities shall be undertaken by involving local villages and administration.
PPs Submission: Complied Complied. CSR activities are being implemented in and around villages.		Date: 29/05/2024
10	Corporate Environmental Responsibility	The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment

PPs Submission: Complied Complied. Activities were undertaken particularly for following: 1. Seed distribution to 139 Self Help Group Members for kitchen gardening of orchid and leafy vegetables plant. 2. Sapling distribution to 10 Gram Panchayats in 15 villages. A total of 10,300 saplings.		Date: 29/05/2024
11	MISCELLANEOUS	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
PPs Submission: Complied Complied. Yearly EMP cost is 3 crores. EMP cost of Rs. 113.5 Crores incurred for the year 2018 post receipt of EC.		Date: 29/05/2024
12	MISCELLANEOUS	A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/ Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
PPs Submission: Complied Complied. The copy of this Env.clearance has been submitted to Roha Nagarpalika and Kuhire village panchayat and the acknowledgement copies were submitted along with the compliance report dated 05.12.2018.		Date: 29/05/2024
13	Statutory compliance	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF& CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
PPs Submission: Complied Complied. PP is regularly submitting half yearly EC compliance report to MoEF&CC Regional Office, MPCB & CPCB regional offices. Last compliance report was submitted on 1st Dec 2023. Compliance report is also available on the company website: https://www.ril.com/sustainability/health-safety-environment		Date: 29/05/2024
14	Statutory compliance	The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.
PPs Submission: Complied Complied. Environment statement submitted to MPCB through their online portal. The copy of the Environment Statement 2022-23 is attached as Annexure 8.		Date: 29/05/2024
15	Statutory compliance	The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry at http://moef.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely

		circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
PPs Submission: Complied Complied. The advertisement was published as stipulated and copy of these paper clippings were submitted along with the compliance report dated 05.12.2018.		Date: 29/05/2024
16	MISCELLANEOUS	The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
PPs Submission: Complied These details were submitted to your office through compliance report dated: 05.12.2018.		Date: 29/05/2024

Visit Remarks

Last Site Visit Report Date:	N/A
Additional Remarks:	Annexure 1-5 & form-V are uploaded as Additional Attachment.

Annexure-1

Reliance Industries Limited , Nagothane Manufacturing Division

Half yearly Stack Monitoring Results :Oct'23 to March'24

Oct-23

Parameter Analysed	MPCB Limit	Unit	STACKS						
			H10(GC)	H11(GC)	H12(GC)	H13(GC)	H14(GC)	CPP	RPET
PM	10 (GC)/ 150 (CPP& RPET)	mg/Nm^3	0.1	0.1	0.21	0.1	0.11	0.5	0.3
SO2	50	mg/Nm^3	1.3	1.25	1.26	1.26	1.26	*	*
	1700	mg/Nm^3	*	*	*	*	*	1.4	35.3
NOx	350	mg/NM^3	75.5	53.04	90.18	58.47	70.32	53.3	4.97
CO	150	mg/Nm^3	4.79	15.26	15.74	25.02	5.68	6.1	12.59

Nov-23

Parameter Analysed	MPCB Limit	Unit	STACKS						
			H10(GC)	H11(GC)	H12(GC)	H13(GC)	H14(GC)	CPP	RPET
PM	10 (GC)/ 150 (CPP& RPET)	mg/Nm^3	0.3	0.07	0.2	0.2	0.25	0.50	0.41
SO2	50	mg/Nm^3	1.3	1.25	1.44	1.25	1.25	*	*
	1700	mg/Nm^3	*	*	*	*	*	1.57	35.89
NOx	350	mg/NM^3	78.5	59.86	108.75	48.3	83.1	52.78	7.26
CO	150	mg/Nm^3	2.39	15.13	9.20	25.39	6.20	5.62	10.17

Dec-23

Parameter Analysed	MPCB Limit	Unit	STACKS						
			H10(GC)	H11(GC)	H12(GC)	H13(GC)	H14(GC)	CPP	RPET
PM	10 (GC)/ 150 (CPP& RPET)	mg/Nm^3	0.1	0.1	0.02	0.13	0.12	0.50	0.39
SO2	50	mg/Nm^3	1.3	1.3	1.3	1.26	1.25	*	*
	1700	mg/Nm^3	*	*	*	*	*	1.29	35.7
NOx	350	mg/NM^3	97.7	66.1	119.41	47.32	96.91	47.82	8.29
CO	150	mg/Nm^3	2.40	15.13	8.98	16.78	6.16	7.69	7.56

****Stack emission has been taken from CEMS**

Annexure-1

Reliance Industries Limited , Nagothane Manufacturing Division

Half yearly Stack Monitoring Results :Oct'23 to March'24

Jan-24

Parameter Analysed	MPCB Limit	Unit	STACKS						
			H10(GC)	H11(GC)	H12(GC)	H13(GC)	H14(GC)	CPP	RPET
PM	10 (GC)/ 150 (CPP& RPET)	mg/Nm^3	0.14	0.12	0.23	0.17	0.14	0.7	0.69
SO2	50	mg/Nm^3	1.26	1.29	1.98	1.26	1.25	*	*
	1700	mg/Nm^3	*	*	*	*	*	1.86	34.12
NOx	350	mg/NM^3	87.21	58.77	96.64	48.53	106.23	52.4	8.39
CO	150	mg/Nm^3	2.19	14.28	8.68	15.85	5.72	6.1	4.57

Feb-24

Parameter Analysed	MPCB Limit	Unit	STACKS						
			H10(GC)	H11(GC)	H12(GC)	H13(GC)	H14(GC)	CPP	RPET
PM	10 (GC)/ 150 (CPP& RPET)	mg/Nm^3	0.13	0.11	0.23	0.15	0.13	0.49	0.49
SO2	50	mg/Nm^3	1.26	1.26	1.89	1.26	1.26	*	*
	1700	mg/Nm^3	*	*	*	*	*	1.29	33.49
NOx	350	mg/NM^3	98.39	86.82	118.78	45.39	77.12	57.56	7.92
CO	150	mg/Nm^3	2.52	15.12	8.44	22.51	12.98	6.12	14.47

Mar-24

Parameter Analysed	MPCB Limit	Unit	STACKS						
			H10(GC)	H11(GC)	H12(GC)	H13(GC)	H14(GC)	CPP	RPET
PM	10 (GC)/ 150 (CPP& RPET)	mg/Nm^3	0.11	0.10	0.20	0.13	0.11	0.57	0.57
SO_2	50	mg/Nm^3	1.26	1.26	1.26	1.26	1.16	*	*
	1700	mg/Nm^3	*	*	*	*	*	1.30	32.95
NOx	350	mg/NM^3	101.66	90.75	129.00	41.92	52.66	58.17	6.22
CO	150	mg/Nm^3	2.60	15.23	8.93	19.96	4.79	6.02	14.63

****Stack emission has been taken from CEMS**

Annexure-2

Reliance Industries Limited , Nagothane Manufacturing Division

Half Yearly Report of Ambient Air Monitoring Results - Monthly average data

Period: Oct'23 to March'24

SL. NO.	DESCRIPTION	Unit	NAAQMS Limit	Oct-23						Nov-23						Dec-23					
				LOCATIONS						LOCATIONS						LOCATIONS					
				Colony	H.S.E. Building	Plant East Boundary -EOEG	Kuhire Nursery area	Parking plaza	CAAQM Station at Mat. Stores	Colony	H.S.E. Building	Plant East Boundary -EOEG	Kuhire Nursery area	Parking plaza	CAAQM Station at Mat. Stores	Colony	H.S.E. Building	Plant East Boundary - EOEG	Kuhire Nursery area	Parking plaza	CAAQM Station at Mat. Stores
1	PM10 (24 hrs)	µg/m3	100 (24 Hourly)	49.5	51.67	55.18	49.78	58.87	71	54.06	54.81	58.3	61.4	52.01	97.2	57.08	56.38	63.36	64.09	71.66	72.8
2	PM2.5 (24 hrs)	µg/m3	60 (24 Hourly)	21.42	20.19	22.11	20.15	24.53	42.6	27.39	27.78	29.7	31.08	26.55	57.9	27.84	28	30.63	31.91	37.99	58.2
3	Sulphur Dioxide (24 hrs)	µg/m3	80 (24 Hourly)	9.46	9.94	9.37	10.09	11.87	1.87	14.21	15.14	16.1	17.06	16.79	1.23	16.08	16.08	14.95	18.3	26.73	1.27
4	Oxides of Nitrogen (24 hrs)	µg/m3	80 (24 Hourly)	13.68	14.34	13.56	15.49	16.21	15.57	18.69	20.14	20.5	21.64	21.4	19.73	21.18	21.18	20.05	23.4	32.19	25.81
5	Carbon Monoxide (8hrs)	mg/m3	2 (8 Hourly)	0.958	1.12	0.84	1.01	1.05	0.61	1.07	1.29	0.89	1.06	1.14	0.89	1.10	1.23	0.97	1.16	1.17	0.91
6	Benzene (24 hrs.)	µg/m3	5 (Yearly)	2.24	2.43	2.56	2.69	2.44	0.29	2.24	2.99	2.5	2.46	2.73	4.16	2.48	3.01	2.85	2.94	2.93	4.10
7	Ammonia (24 hrs.)	µg/m3	400 (24 Hourly)	13.78	14.08	12.89	13.15	13.83	3.54	15.04	14.75	15.7	15.26	15.5	8.06	17.25	16.34	15.65	16.65	21.16	16.51
8	Ozone (8 hrs)	µg/m3	100 (8 Hourly)	6.69	9.17	8.41	8.41	9.2	29.01	7.73	9.53	9.4	8.83	9.86	20.19	9.64	10.14	9.95	10.73	13.46	22.95
9	Benzo- a - Pyrene (24 hrs)	ng/m3	1 (Yearly)	<0.5	<0.5	<0.5	<0.5	<0.5	*	<0.5	<0.5	<0.5	<0.5	<0.5	*	<0.5	<0.5	<0.5	<0.5	<0.5	*
10	Lead (24 hrs)	µg/m3	1 (24 Hourly)	<0.1	<0.1	<0.1	<0.1	<0.1	*	<0.1	<0.1	<0.1	<0.1	<0.1	*	<0.1	<0.1	<0.1	<0.1	<0.1	*
11	Arsenic (24 hrs)	ng/m3	6 (Yearly)	<1.0	<1.0	<1.0	<1.0	<1.0	*	<1.0	<1.0	<1.0	<1.0	<1.0	*	<1.0	<1.0	<1.0	<1.0	<1.0	*
12	Nickel (24 hrs)	ng/m3	20 (Yearly)	<5.0	<5.0	<5.0	<5.0	<5.0	*	<5.0	<5.0	<5.0	<5.0	<5.0	*	<5.0	<5.0	<5.0	<5.0	<5.0	*

Note : Ambient air is monitored weekly twice by third party vendor approved by MoEF - M/s Netel India
In addition, 1 Continuos Ambient Air Monitoring station is operational at a location approved by MPCB.

Annexure-2

Reliance Industries Limited , Nagothane Manufacturing Division

Half Yearly Report of Ambient Air Monitoring Results - Monthly average data
Period: Oct'23 to March'24

SR. NO.	DESCRIPTION	Unit	NAAQMS Limit	Jan-24						Feb-24						Mar-24					
				LOCATIONS						LOCATIONS						LOCATIONS					
				Colony	H.S.E. Building	Plant East Boundary -EOEG	Kuhire Nursery area	Parking plaza	CAAQM Station at Mat. Stores	Colony	H.S.E. Building	Plant East Boundary -EOEG	Kuhire Nursery area	Parking plaza	CAAQM Station at Mat. Stores	Colony	H.S.E. Building	Plant East Boundary - EOEG	Kuhire Nursery area	Parking plaza	CAAQM Station at Mat. Stores
1	PM10 (24 hrs)	µg/m3	100 (24 Hourly)	64.19	61.1	66.68	67.31	68.55	65.19	66.13	62.51	68.0	69.58	69.19	69	69.14	65.13	70.59	72.63	72.13	54.3
2	PM2.5 (24 hrs)	µg/m3	60 (24 Hourly)	32.28	30.85	33.56	33.83	34.51	37.8	32.6	31.03	33.7	34.68	34.21	31.8	34.3	32.61	35.36	36.46	35.89	26.2
3	Sulphur Dioxide (24 hrs)	µg/m3	80 (24 Hourly)	18.69	18.43	17.76	20.5	25.88	1.39	19.35	18.36	18.6	24.03	21.1	1.86	20.25	19.3	19.51	25.25	22.16	1.95
4	Oxides of Nitrogen (24 hrs)	µg/m3	80 (24 Hourly)	21.72	22.09	22.54	24.33	30.49	27.2	21.93	22.55	22.7	28.99	24.78	5.37	23.24	23.63	23.74	30.43	26.04	32.15
5	Carbon Monoxide (8hrs)	mg/m3	2 (8 Hourly)	1.115	1.22	0.96	1.16	1.17	0.95	1.21	1.34	1.05	1.27	1.26	0.87	1.33	1.48	1.16	1.39	1.39	1.03
6	Benzene (24 hrs.)	µg/m3	5 (Yearly)	2.15	1.95	1.92	2.08	2.2	7.58	2.09	2.05	2.3	2.31	2.1	3.1	1.93	1.9	2.08	1.99	1.74	1.24
7	Ammonia (24 hrs.)	µg/m3	400 (24 Hourly)	18.72	17.75	17.57	18.02	19.68	18.21	19.69	18.81	18.5	19.29	20.28	1.7	20.71	19.74	19.34	20.71	20.23	22.95
8	Ozone (8 hrs)	µg/m3	100 (8 Hourly)	8.88	10.11	9.5	10.56	9.18	23.97	8.41	9.11	8.7	7.98	9.21	27.7	8.79	9.65	8.63	9.69	8.36	29.26
9	Benzo- a - Pyrene (24 hrs)	ng/m3	1 (Yearly)	<0.5	<0.5	<0.5	<0.5	<0.5	*	<0.5	<0.5	<0.5	<0.5	<0.5	*	<0.5	<0.5	<0.5	<0.5	<0.5	*
10	Lead (24 hrs)	µg/m3	1 (24 Hourly)	<0.1	<0.1	<0.1	<0.1	<0.1	*	<0.1	<0.1	<0.1	<0.1	<0.1	*	<0.1	<0.1	<0.1	<0.1	<0.1	*
11	Arsenic (24 hrs)	ng/m3	6 (Yearly)	<1.0	<1.0	<1.0	<1.0	<1.0	*	<1.0	<1.0	<1.0	<1.0	<1.0	*	<1.0	<1.0	<1.0	<1.0	<1.0	*
12	Nickel (24 hrs)	ng/m3	20 (Yearly)	<5.0	<5.0	<5.0	<5.0	<5.0	*	<5.0	<5.0	<5.0	<5.0	<5.0	*	<5.0	<5.0	<5.0	<5.0	<5.0	*

Ambient air is monitored weekly twice by third party vendor approved by MoEF - M/s Netel India
In addition, 1 Continuos Ambient Air Monitoring station is operational at a location approved by MPCB.

Annexure 3

Reliance Industries Limited , Nagothane Manufacturing Division

Half Yearly Report of Treated Effluent Analysis - Period: Oct'23 to March'24

Monthly Average data

Sl.No	Month	pH	TDS	TSS	S	O&G	COD	BOD	Chlorides	Sulphates
		–	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
1	Oct-23	8.0	1890.2	11.7	0.3	<4.0	43.6	14.9	523.2	717.3
2	Nov-23	7.9	2855.1	11.4	0.3	<4.0	49.9	16.9	676.3	1389.0
3	Dec-23	8.1	2565.0	10.9	0.3	<4.0	53.8	17.2	650.3	1245.2
4	Jan-24	8.0	2602.9	11.3	0.3	<4.0	51.1	15.3	723.0	1214.6
5	Feb-24	8.0	2870.3	10.9	0.2	<4.0	68.8	14.4	759.3	1381.5
6	Mar-24	7.9	2631.0	10.6	0.3	<4.0	74.6	17.6	905.6	1184.0
7	Min	7.9	1890.2	10.6	0.2	0.0	43.6	14.4	523.2	717.3
8	Max	8.1	2870.3	11.7	0.3	<4	74.6	17.6	905.6	1389.0
9	Average	8.0	2569.1	11.1	0.3	<4	57.0	16.0	706.3	1188.6
10	Permissible limit as per Consent	5.5 TO 9	-	100	2	10	250	100	-	-

Annexure 4

Reliance Industries Limited , Nagothane Manufacturing Division

Half Yearly Report of Noise Level Monitoring
Period: Oct'23 to March'24

		Monthly average Noise Levels (dB)											
Sl.No	Location	Oct-23		Nov-23		Dec-23		Jan-24		Feb-24		Mar-24	
		Day	Night	Day	Night	Day	Night	Day	Night	Day	Night	Day	Night
1	Materials Gate	62.7	59.4	63.9	58.5	66.5	60.7	66.8	60.6	66.6	60.2	67.3	59.8
2	Stores	51.2	48.4	51.7	48.3	53.2	50.3	53.7	51.7	53.6	51.1	54.4	51.7
3	EO / EG End	68.0	64.8	67.4	64.1	68.4	65.3	68.6	65.1	69.1	65.1	70.9	66.5
4	F & A	60.7	58.9	61.2	57.4	62.1	59.5	61.7	58.9	61.6	58.6	61.8	58.9
5	Time Office	57.7	50.4	57.4	55.9	53.9	53.8	59.8	56.9	60.1	56.0	59.1	56.6
6	Pipe Line	50.0	46.9	50.1	47.1	51.2	48.7	53.5	51.2	54.0	51.8	54.3	52.0
7	Family Welfare Centre	54.9	49.6	55.9	51.2	57.5	53.5	57.9	54.7	58.7	51.8	57.2	51.4

Noise Standard as per MPCB : During Day time 75 dB(A) ; During Night time 70 dB(A)

Annexure 5

Reliance Industries Limited , Nagothane Manufacturing Division

Half Yearly Report of Ground water Monitoring - Oct'23 to March'24

Sl.No	Location	Dec-23				
		Medha - Dug well	Nagothane - Dug well	RIL Plant Well	Bense - Hand Pump	RIL Township - Well
1	pH Value	6.97	7.48	7.1	7.02	7.01
2	Turbidity, NTU	8.5	<1.0	4.2	3.9	2.8
3	Total Hardness (as CaCO3), mg/l	46.6	35.9	85.4	131.9	81.5
4	Dissolved Solids (TDS), mg/l	96	100	134	150	165
5	Suspended Solids (TSS), mg/l	<5	<5	<5	<5	<5
6	Alkalinity (as CaCO3), mg/l	69.3	58.8	65.1	63	67.2
7	Iron (as Fe), mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
8	Nickel as NI, mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
9	Copper (as Cu), mg/l	<0.04	<0.04	<0.04	<0.04	<0.04
10	Sulphate (as SO4), mg/l	<1.0	<1.0	<1.0	<1.0	<1.0
11	Nitrate (as NO3-), mg/l	<0.5	<0.5	<0.5	<0.5	<0.5
12	Fluoride (as F), mg/l	0.3	0.4	<0.2	<0.2	<0.2
13	Phenolic compounds, mg/l	<0.5	<0.5	<0.5	<0.5	<0.5
14	Lead (as Pb), mg/l	<0.05	<0.05	<0.05	<0.05	<0.05
15	Zinc (as Zn), mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
16	Chromium (as Cr+6), mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
17	Vanadium, mg/l	<0.5	<0.5	<0.5	<0.5	<0.5
18	Mineral Oil, mg/l	<0.5	<0.5	<0.5	<0.5	<0.5
19	Total Coliforms, MPN/100 ml	4	6	6	8	4
20	Phosphates (as PO4), mg/l	<3	<3	<3	<3	<3
21	Nitrite as (NO2), mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
22	Sodium, mg/l	8.6	9.2	18.5	90.2	12.9
23	Potassium, mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
24	Chlorides, mg/l	3.9	4.9	3.9	4.9	3.9
25	Dissolved Oxygen (DO), mg/l	6.7	6.5	6.6	6.8	6.7
26	Oil & Grease, mg/l	<2	<2	<2	<2	<2
27	Phosphorous, mg/l	<1.0	<1.0	<1.0	<1.0	<1.0
28	Salinity, ppth	0.04	0.04	0.04	0.3	0.04

Annexure 5

Reliance Industries Limited , Nagothane Manufacturing Division

Half Yearly Report of Ground water Monitoring - Oct'23 to March'24

Sl.No	Location	Mar-24				
		Medha - Dug well	Nagothane - Dug well	RIL Plant Well	Bense - Hand Pump	RIL Township - Well
1	pH Value	7.06	7.72	7.0	6.85	6.8
2	Turbidity, NTU	<1.0	<1.0	<1.0	<1.0	1.2
3	Total Hardness (as CaCO3), mg/l	42.7	48.5	67.9	34.9	62.1
4	Dissolved Solids (TDS), mg/l	108	112	152	100	125
5	Suspended Solids (TSS), mg/l	<5	<5	<5	<5	<5
6	Alkalinity (as CaCO3), mg/l	33	39.6	61.6	37.4	66
7	Iron (as Fe), mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
8	Nickel as NI, mg/l	<0.02	<0.02	<0.02	<0.02	<0.02
9	Copper (as Cu), mg/l	<0.04	<0.04	<0.04	<0.04	<0.04
10	Sulphate (as SO4), mg/l	<1.0	<1.0	<1.0	<1.0	<1.0
11	Nitrate (as NO3-), mg/l	<0.5	<0.5	<0.5	<0.5	<0.5
12	Fluoride (as F), mg/l	0.3	0.2	<0.2	<0.2	<0.2
13	Phenolic compounds, mg/l	<0.5	<0.5	<0.5	<0.5	<0.5
14	Lead (as Pb), mg/l	<0.05	<0.05	<0.05	<0.05	<0.05
15	Zinc (as Zn), mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
16	Chromium (as Cr+6), mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
17	Vanadium, mg/l	<0.5	<0.5	<0.5	<0.5	<0.5
18	Mineral Oil, mg/l	<0.5	<0.5	<0.5	<0.5	<0.5
19	Total Coliforms, MPN/100 ml	2	4	4	6	2
20	Phosphates (as PO4), mg/l	<3	<3	<3	<3	<3
21	Nitrite as (NO2), mg/l	<0.01	<0.01	<0.01	<0.01	<0.01
22	Sodium, mg/l	7.3	8.6	12.8	72.6	10.3
23	Potassium, mg/l	<0.1	<0.1	<0.1	<0.1	<0.1
24	Chlorides, mg/l	5.9	6.9	9.4	8.9	8.4
25	Dissolved Oxygen (DO), mg/l	6.7	6.8	6.8	6.4	6.9
26	Oil & Grease, mg/l	<2	<2	<2	<2	<2
27	Phosphorous, mg/l	<1.0	<1.0	<1.0	<1.0	<1.0
28	Salinity, ppth	0.04	0.04	0.05	0.05	0.05

Maharashtra Pollution Control Board

महाराष्ट्र प्रदूषण नियंत्रण मंडळ

FORM V

(See Rule 14)

Environmental Audit Report for the financial Year ending the 31st March 2023

Unique Application Number	Submitted Date
MPCB-ENVIRONMENT_STATEMENT-0000056471	29-08-2023

PART A

Company Information

Company Name	Application UAN number	
RELIANCE INDUSTRIES LIMITED	MPCB-CONSENT-0000083517	
Address		
PO: Petrochemical Township, Nagothane		
Plot no	**Taluka**	**Village**
2/1,2/2,A-1,A-1/1	PEN	Nagothane
Capital Investment (In lakhs)	**Scale**	**City**
136764.00	L.S.I	Raigad
Pincode	**Person Name**	**Designation**
402125	Sachin Bhagwat	Vice President - HSEF
Telephone Number	**Fax Number**	**Email**
9970050035	9970050035	sachin.bhagwat@ril.com
Region	**Industry Category**	**Industry Type**
SRO-Raigad II	Red	R57 Petrochemicals Manufacturing (including processing of Emulsions of oil and water)
Last Environmental statement submitted online	**Consent Number**	**Consent Issue Date**
yes	MPCB-CONSENT-0000083517	2020-11-09
Consent Valid Upto	**Establishment Year**	**Date of last environment statement submitted**
31.08.2023	1989	
Industry Category Primary (STC Code) & Secondary (STC Code)		

Product Information

Product Name	Consent Quantity	Actual Quantity	UOM
Ethylene	510000	493678	MT/A
Propylene	70000	22762	MT/A
Ethylene Glycol	70000	39666	MT/A
Ethylene Oxide	60000	57000	MT/A
Low Density Polyethylene(LDPE)	120000	103313	MT/A
Linear Low Density Polyethylene/High density Polyethylene/Metallocene (LLDPE/HDPE/Metallocene)	350000	301513	MT/A
Polypropylene (PP)	150000	120322	MT/A

Recycled Polyethylene Terephthalate (R_PET)	16000	2903.696	MT/A
Power	85	44	Mwh

By-product Information

By Product Name	***Consent Quantity***	***Actual Quantity***	***UOM***
Mixed Oil (Pyrolysis Gasoline RARFS, Pyrolysis Fuel Oil)	38000	34976	MT/A
C4-cut	24000	21457	MT/A
Poly ethylene Glycol	7500	3671	MT/A
CO2	40000	34228	MT/A
Pre poly powder	30	5.265	MT/A
Oligomer	15000	0	MT/A

Part-B (Water & Raw Material Consumption)

1) Water Consumption in m3/day

Water Consumption for	***Consent Quantity in m3/day***	***Actual Quantity in m3/day***
Process	2500.00	623.00
Cooling	30800.00	16339.00
Domestic	11700.00	5909.00
All others	0.00	0.00
Total	45000.00	22871.00

2) Effluent Generation in CMD / MLD

Particulars	***Consent Quantity***	***Actual Quantity***	***UOM***
Trade Effluent including Sewage from Plant	10500	1626.4	CMD

2) Product Wise Process Water Consumption (cubic meter of process water per unit of product)

Name of Products (Production)	***During the Previous financial Year***	***During the current Financial year***	***UOM***
ETHYLENE/PROPYLENE	0.383	0.209	
EO/EG	0.0239	0.085	
LDPE	0.075	0.035	
LLDPE/HDPE/METALLOCENE	0.102	0.134	
POLYPROPYLENE	0.028	0.003	

3) Raw Material Consumption (Consumption of raw material per unit of product)

Name of Raw Materials	***During the Previous financial Year***	***During the current Financial year***	***UOM***
Ethylene in LLDPE	0.9876	1.004	Ton/Ton
Ethylene in HDPE	0.9983	1.001	Ton/Ton
Ethylene in LDPE	1.0719	1.076	Ton/Ton
Ethylene in EOEG	0.7401	0.756	Ton/Ton
Propylene in PP	1.0073	1.018	Ton/Ton

4) Fuel Consumption

Fuel Name	***Consent quantity***	***Actual Quantity***	***UOM***

Gas Fuel used in Gas Cracker	361715	157340.8	MT/A
Gas and Liquid Fuel in CPP	498225	117705.4	MT/A
Liquid Fuel in R-PET furnace	179.58	46.74	MT/A

Part-C

Pollution discharged to environment/unit of output (Parameter as specified in the consent issued)

[A] Water

Pollutants Detail	***Quantity of Pollutants discharged (kL/day)***	***Concentration of Pollutants discharged(Mg/Lit) Except PH,Temp,Colour***	***Percentage of variation from prescribed standards with reasons***		
	Quantity	***Concentration***	***%variation***	***Standard***	***Reason***
Total Dissolved Solids	4044.6	2486.9	0	NA	NA
Total Suspended Solids	18.8	11.5	0	100	NA
COD	95	58.4	0	250	NA
BOD	31.1	19.1	0	100	NA
Oil and Grease	6.5	4	0	10	NA
Chloride	884.9	544.1	0	NA	NA
Sulphate	1755.9	1079.7	0	NA	NA
pH	0	8	0	5.5 to 9	NA

[B] Air (Stack)

Pollutants Detail	***Quantity of Pollutants discharged (kL/day)***	***Concentration of Pollutants discharged(Mg/NM3)***	***Percentage of variation from prescribed standards with reasons***		
	Quantity	***Concentration***	***%variation***	***Standard***	***Reason***
CPP - SO2	39.12	2.17	0	1700	NA
CPP- NOX	1058.72	58.95	0	350	NA
CPP- CO	145.68	8.16	0	150	NA
CPP - PM	21.02	1.15	0	150	NA
GC - SOX	28.87	4.09	0	50	NA
GC - NOX	624.84	80.85	0	350	NA
GC - CO	161.79	19.51	0	150	NA
GC - PM	2.17	0.95	0	10	NA
RPET - SOX	0.03	30.05	0	1700	NA
RPET - NOX	1.13	20.28	0	350	NA
RPET - CO	0.7	12.65	0	150	NA
RPET - PM	0.04	0.71	0	150	NA

Part-D

HAZARDOUS WASTES

1) From Process

Hazardous Waste Type	***Total During Previous Financial year***	***Total During Current Financial year***	***UOM***
5.1 Used or spent oil	88.165	85.695	MT/A

33.2 Contaminated cotton rags or other cleaning materials	5.715	7.98	MT/A
33.1 Empty barrels /containers /liners contaminated with hazardous chemicals /wastes	7249	4968	Nos./Y
Other Hazardous Waste	87	0	Nos./Y
35.2 Spent ion exchange resin containing toxic metals	24.23	24.23	MT/A
1.6 Spent catalyst and molecular sieves	0	63.262	MT/A

2) From Pollution Control Facilities

Hazardous Waste Type	***Total During Previous Financial year***	***Total During Current Financial year***	***UOM***
1.3 Oily sludge emulsion	7.74	63.785	MT/A
35.3 Chemical sludge from waste water treatment	2.595	5.545	MT/A

Part-E

SOLID WASTES

1) From Process

Non Hazardous Waste Type	***Total During Previous Financial year***	***Total During Current Financial year***	***UOM***
Decoke Carbon	10.14	7.63	MT/A
Miscellaneous waste	189.18	195.585	MT/A
Metal Scrap	506.22	128.19	MT/A
Wooden Scrap	109.1	131.7	MT/A
Paper, cardboard , glass, rubber scrap	34.87	22.945	MT/A
Plastic waste	47.72	24.63	MT/A
Glass Scrap	2.305	0	MT/A

2) From Pollution Control Facilities

Non Hazardous Waste Type	***Total During Previous Financial year***	***Total During Current Financial year***	***UOM***
Biological Sludge	531.249	452	MT/A

3) Quantity Recycled or Re-utilized within the unit

Waste Type	***Total During Previous Financial year***	***Total During Current Financial year***	***UOM***
0	0	0	MT/A

Part-F

Please specify the characteristics(in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

1) Hazardous Waste

Type of Hazardous Waste Generated	***Qty of Hazardous Waste***	***UOM***	***Concentration of Hazardous Waste***
1.3 Oily sludge emulsion	500	MT/A	Contains 40% water, polymer powder and oil
5.1 Used or spent oil	200	MT/A	Used Lube / Transformer Oil
5.2 Wastes or residues containing oil	200	MT/A	Waste Oil which contains waste process oil/ black oil and waste residues containing oil which includes oily cotton rags.

20.2 Spent solvents	800	MT/A	Mainly contains spent solvent from the process plants which is used as fuel in Captive power plant and also contains spent chemicals used in the plants.
33.1 Empty barrels /containers /liners contaminated with hazardous chemicals /wastes	25000	Nos./Y	Empty barrels, container and carboys that once contained hazardous material/ chemical.
35.3 Chemical sludge	100	MT/A	Chemical Sludge generated from primary treatment of ETP. Contains 40% Water and rest settled solids with coagulant.
1.6 Spent catalyst and molecular sieves	100	MT/A	Incidental Generation
33.2 Oily cotton waste and rags	15	MT/A	Cotton rags includes traces of oil used for cleaning
Other Hazardous Waste	3170	Nos./Y	Contains Dry lead acid and Ni Cd batteries generated occasionally
Other Hazardous Waste	50	MT/A	Spent resin used in DMW plant.

2) Solid Waste

Type of Solid Waste Generated	***Qty of Solid Waste***	***UOM***	***Concentration of Solid Waste***
Decoked Carbon	32	MT/A	Solid carbon particles generated during the decoking operation.
Activated Carbon and Charcoal	50	MT/A	Used in DMW plant in water filtration
Discarded Alumina	90	MT/A	used as filter media in air drier
Ceramic balls	10	MT/A	used as filter media in air drier
Metal Scrap	1300	MT/A	Generated from plant during maintainance etc.
Miscellaneous waste	450	MT/A	No saleable waste like small bits of paper, cotton, rubber
Biological sludge	1200	MT/A	Generated from Biological treatment in ETP
Wooden Scrap	300	MT/A	Generated from plant during maintainance etc.
Paper Glass Rubber scrap	80	MT/A	Generated from plant during maintainance etc.
Plastic Waste	300	MT/A	GenerateGenerated from plant during maintainance etc.

Part-G

Impact of the pollution Control measures taken on conservation of natural resources and consequently on the cost of production.

Description	***Reduction in Water Consumption (M3/day)***	***Reduction in Fuel & Solvent Consumption (KL/day)***	***Reduction in Raw Material (Kg)***	***Reduction in Power Consumption (KWH)***	***Capital Investment(in Lacs)***	***Reduction in Maintenance(in Lacs)***
Treated effluent reuse in Horticulture and fire Water make up	2876	0	0	0	0	0.0
UFRO treated water recycling in process	1152	0	0	0	0	0.0

Part-H

Additional measures/investment proposal for environmental protection abatement of pollution, prevention of pollution.

[A] Investment made during the period of Environmental Statement

Detail of measures for Environmental Protection	***Environmental Protection Measures***	***Capital Investment (Lacks)***
Monitoring for Ambient air, Ambient noise, Stack monitoring ,Waste Water & Treated Effluent, Ground Water, Meteorological parameters	APC	35.0
ISO Certification (Surveillance)	Env. Audit	2.4

NIO (Amba estuary monitoring)	WPC	35.0
CAAQMS and CEMS maintenance	APC	37.37
IWWTP operation and maintenance	WPC	533
World Environment day	Env. Awareness	0.5
Haz waste, biomedical waste Incineration, land fill	Waste Management	15.0
Horticulture (Tree plantation & Maintenance)	Green Belt	689

[B] Investment Proposed for next Year

Detail of measures for Environmental Protection	***Environmental Protection Measures***	***Capital Investment (Lacks)***
Monitoring for Ambient air, Ambient noise, Stack monitoring ,Waste Water & Treated Effluent, Ground Water, Meteorological parameters	APC	35.0
NIO (Amba estuary monitoring)	Environment Monitoring	35.0
ISO certification and Other Audits and Awards	Env. Awareness	3
Haz waste, biomedical waste Incineration, land fill	Waste Management	10
Horticulture (Tree plantation & Maintenance)	Green Belt	400

Part-I

Any other particulars for improving the quality of the environment.

Particulars

a) RIL commenced sustainability reporting, annually, on its triple-bottom line performance i.e. Communication of in-depth information on Environmental, Social and Economic Performance to all Stakeholders), from FY 2004-05. b) All its sustainability reports are externally assured and are Global Reporting Initiative (GRI) checked. The maiden report received 'in-accordance' status from GRI and all subsequent reports are 'GRI Checked A+' application level reports . C) RIL- NMD Completed 40 km of R

Name & Designation

Sachin Bhagwat Head -HSEF

UAN No:

MPCB-ENVIRONMENT_STATEMENT-0000056471

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